

Notice of Allowability	Application No.	Applicant(s)
	09/937,086	BLUM ET AL.
	Examiner	Art Unit
	Rabon Sergent	1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to telephonic interview of March 10, 2004.
2. ☒ The allowed claim(s) is/are 23-36 and 38-46.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

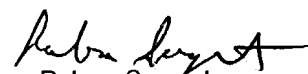
* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>031004</u>. 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
|--|---|


 Rabon Sergent
 Primary Examiner
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An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Gary Matz on March 10, 2004.

Amend claims 23, 40, 45, and 46 as follows:

23. (Amended) A polyurethane solution containing alkoxysilane structural units, wherein the polyurethane is the reaction product of

- a) at least one at least difunctional polyol having an hydroxyl number of from 8 to 200,
- b) at least one at least difunctional polyisocyanate having a molecular weight of 140 to 1,500,
- c) at least one low molecular weight at least difunctional alcohol and/or amine having a molecular weight of 32 to 500,
- d) at least one compound containing at least one alkoxysilane group and an isocyanate-reactive group, and
- e) optionally, a monofunctional compound containing an amino, alcohol or oxime group, other than a compound falling within the scope of component d),

in the presence of an organic solvent, wherein the equivalents of component d) are at least 50% of the total equivalents of components d) and e) and wherein the number of terminal alkoxysilane groups must be at least 50 wt.% of all the incorporated alkoxysilane groups and

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wherein the theoretical content of $-\text{Si}(\text{O}-)_3$ structural units is less than 1.2 wt.%, based on the total solids content of the polyurethane.

40. (Amended) The process of Claim 39 which comprises

- a) reacting components a), b), and optionally c) in a one-stage reaction, optionally in the presence of solvents, to obtain an isocyanate-functional polyurethane,
- b) optionally adding an additional amount of polyisocyanate b) and/or low molecular weight difunctional component c) until a viscosity of from 1,000 to 200,000 mPas (at 23°C) and molecular weight (M_n) of from 4,000 to 500,000 is achieved, and
- c) chain-stopping the reaction by adding a monoamino-functional compound d) containing an alkoxysilane group.

45. (Amended) A polyurethane solution containing alkoxysilane structural units,

wherein the polyurethane is the reaction product of

- a) at least one at least difunctional polyol having an hydroxyl number of from 8 to 200 and a molecular weight of up to 16,000,
- b) at least one at least difunctional polyisocyanate having a molecular weight of 140 to 1,500,
- c) at least one low molecular weight at least difunctional alcohol and/or amine having a molecular weight of 32 to 500,
- d) at least one compound containing at least one alkoxysilane group and an isocyanate-reactive group, and

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e) optionally, a monofunctional compound containing an amino, alcohol or oxime group, other than a compound falling within the scope of component d), in the presence of an organic solvent, wherein the equivalents of component d) are at least 50% of the total equivalents of components d) and e) and wherein the number of terminal alkoxy silane groups must be at least 50 wt.% of all the incorporated alkoxy silane groups and wherein the theoretical content of $-\text{Si}(\text{O}-)_3$ structural units is less than 1.2 wt.%, based on the total solids content of the polyurethane.

46. (Amended) A polyurethane solution containing alkoxy silane structural units, wherein the polyurethane is the reaction product of

- a) at least one at least difunctional polyol having a molecular weight of 561 to 16,000,
- b) at least one at least difunctional polyisocyanate having a molecular weight of 140 to 1,500,
- c) at least one low molecular weight at least difunctional alcohol and/or amine having a molecular weight of 32 to 500,
- d) at least one compound containing at least one alkoxy silane group and an isocyanate-reactive group, and
- e) optionally, a monofunctional compound containing an amino, alcohol or oxime group, other than a compound falling within the scope of component d), in the presence of an organic solvent, wherein the equivalents of component d) are at least 50% of the total equivalents of components d) and e) and wherein the number of terminal alkoxy silane groups must be at least 50 wt.% of all the incorporated alkoxy silane groups and

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wherein the theoretical content of -Si-(O-)_3 structural units is less than 1.2 wt.%, based on the total solids content of the polyurethane.

Any inquiry concerning this communication should be directed to Rabon Sergent at telephone number (571) 272-1079.


RABON SERGENT
PRIMARY EXAMINER

R. Sergent

March 10, 2004

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The following is an examiner's statement of reasons for allowance: The instant invention is deemed to be allowable over the closest prior art of record, considered to be Moren et al. ('651), because the prior art fails to disclose or render obvious the claimed alkoxysilane containing polyurethane solutions having a theoretical content of $-\text{Si}-(\text{O}-)_3$ structural units of less than 1.2 wt.%, based on the total solids content of the polyurethane.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication should be directed to Rabon Sergent at telephone number (571) 272-1079.

R. Sergent

March 10, 2004


RABON SERGENT
PRIMARY EXAMINER